IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application for:

    Chris Fry

Application No.: **10/733,599**

Filed: December 11, 2003

For: SYSTEMS AND METHODS FOR
       LIGHTWEIGHT CONVERSATIONS

Examiner: Chang, Jungwon

Art Unit: 2154

Confirm No.: 8210

Customer No.: 23910

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

<u>APPELLANTS' SUPPLEMENTAL BRIEF ON APPEAL</u>

Dear Sir:

Appellants submit the following Supplemental Appeal Brief pursuant to 37 C.F.R. § 1.191 for consideration by the Board of Patent Appeals and Interferences and requests an extension for one month under 37 CFR 1.136. Appellants submitted a Notice of Appeal along with the appropriate fee on September 5, 2006. Appellants submitted an Appeal Brief pursuant to 37 C.F.R. § 1.191 for consideration by the Board of Patent Appeals and Interferences on January 5, 2007 which was rejected in an Office Action dated February 27, 2007 as defective for failure to comply with one or more provisions of 37 CFR 41.37. The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this appeal, including any fee for extension of time, which may be required.

REAL PARTY IN INTEREST

BEA Systems, Inc. is the real party in interest.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences which will affect or be affected by the outcome of this appeal.

STATUS OF CLAIMS

Appellants appeal the rejection of claims 1-11, 20-32, 34-37, 39-46, 48-51, and 53-60. Claims 1-11, 20-32, 34-37, 39-46, 48-51, and 53-60 were pending and rejected in the Final Office Action dated June 5, 2006. Claims 1-11, 20-32, 34-37, 39-46, 48-51, and 53-60 are reproduced, as pending, in the Claims Appendix.

STATUS OF AMENDMENTS

Appellants did not file any amendments subsequent to the August 7, 2006 response to the Final Office Action dated June 5, 2006.

SUMMARY OF CLAIMED SUBJECT MATTER

As stated in the sixth paragraph on page 1 of the specification of the present application, the invention relates to the management of conversations in a cluster, such as for Web services.

As disclosed in **Figure 1** and Paragraphs 14-16 on page 3 of the specification of the present application, one embodiment of the present invention is a system to provide conversation states that comprises a first computing device **106**, a second computing device **108** and a conversation manager **104.** The first computing device **106** is capable of running a process on the first computing device **106**; and accepting a message during a

conversation between the process running on the first computing device **106** and another process **100**. The second computing device **108** is capable of maintaining a state requested by the message and storing information of the state in memory on the second computing device **108**. The conversation manager **104** is capable of identifying the location of the second computing device **108** which maintains the state requested by the message and providing the location and/or the information of the state to the first computing device **106**.

As also disclosed in **Figure 1** and Paragraphs 14-16 on page 3 of the specification of the present application, one embodiment of the present invention is a system to provide conversation for Web service that comprises a conversation partner **100**, a first computing device **106**, a second computing device **108**, and a conversation manager **104**. The conversation partner **100** is a process and is capable of providing a message during a conversation between the conversation partner **100** and a process running on the first computing device **106**. The first computing device **106** is capable of accepting a message during the conversation with the conversation partner **100**. The second computing device **108** is capable of maintaining a state requested by the message and storing information of the state in memory on the second computing device. The conversation manager **104** is capable of identifying the location of the second computing device **108** which maintains the state requested by the message and providing the location and/or the information of the state to the first computing device **106**.

As also disclosed in **Figure 1** and Paragraphs 14-16 on page 3 of the specification of the present application, one embodiment of the present invention is a method to provide a conversation for a Web service that comprises: maintaining a state on a computing device **108**; storing information of the state in memory on the computing device **108**; accepting a message requesting the state during a conversation between two processes; contacting a conversation manager to determine the location of the state requested by the message; accepting the location and/or the information of the state from the conversation manager; and invoking the state on the computing device in order to respond to the conversation message.

As also disclosed in **Figure 1** and Paragraphs 14-16 on page 3 of the specification of the present application, one embodiment of the present invention is a method to provide a conversation for a Web service that comprises: maintaining a state on a computing device **108**; storing information of the state in memory on the computing device **108**; accepting a message requesting the state during a conversation between two processes; and invoking the state on the computing device in order to respond to the conversation message received directly at the computing device without contacting a conversation manager.

In addition to the disclosure in **Figure 1** and Paragraphs 14-16 on page 3 of the specification of the present application, the twenty-fourth, twenty-fifth and twenty-sixth paragraphs discloses one embodiment of the present invention is a machine readable medium having instructions stored thereon that when executed by a processor cause a system to: maintain a state on a computing device **108**; store the information of the state in memory on the computing device **108**; accept a message requesting the state during a conversation between two processes; contact a conversation manager to determine the location of the state requested by the message; accept the location and/or the information of the state from the conversation manager; and invoke the state on the computing device in order to respond to the conversation message.

In addition to the disclosure in **Figure 1** and Paragraphs 14-16 on page 3 of the specification of the present application, Paragraphs 24 and 25 disclose one embodiment of the present invention is a machine readable medium having instructions stored thereon that when executed by a processor cause a system to: maintain a state on a computing device **108**; store information of the state in memory on the computing device **108**; accept a message requesting the state during a conversation between two processes; and invoke the state on the computing device in order to respond to the conversation message received directly at the computing device without contacting a conversation manager.

As also disclosed in **Figure 1**, Paragraphs 14-16 on page 3 of the specification of the present application, and 24 and 25, one embodiment of the present invention is a system for handling conversation that comprises: means for maintaining a state on a computing device **108**; means for storing information of the state in memory on the computing device **108**; means for accepting a message requesting the state during a conversation between two processes; means for contacting a conversation manager to determine the location of the state requested by the message; means for accepting the location and/or the information of the state from the conversation manager; and means for invoking the state on the computing device in order to respond to the conversation message. This is a means plus function type of description of one embodiment of the present invention. The structure for this means plus function can be found as disclosed in Paragraph 14-16 and 24-25.

As also disclosed in **Figure 1**, the fourteenth and fifteenth paragraphs on page 3 of the specification of the present application, and claim 58 as originally filed, one embodiment of the present invention is a computer data signal embodied in a transmission medium can comprise a code segment including instructions to maintain a state on a computing device; a code segment including instructions to store information of the state in memory on the computing device; a code segment including instructions to accept a message requesting the state during a conversation between two processes; a code segment including instructions to contact a conversation manager to determine the location of the state requested by the message; a code segment including instructions to accept the location and/or the information of the state from the conversation manager; and a code segment including instructions to invoke the state on the computing device in order to respond to the conversation message.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

I. Claims 1-6, 9-11, 20-32, 34, 37, 39-46, 48, 51 and 53-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iyer (2001/0037367), in view of Yamamoto (2003/0037110) and Yasue (2003/0009525).

II. Claims 7, 8, 17, 18, 35, 36, 49, 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iyer, Yamamoto, Yasue, in further view of Eide et. al. (2004/0078455)

ARGUMENT

A. Rejection of claims 1-6, 9-11, 20-32, 34, 37, 39-46, 48, 51 and 53-60 are improper because Iyer in view of Yamamoto and Yasue cannot render independent claims 1, 10, 29, 30, 43, 44, 57 and 58 obvious.

      a. <u>Rejection of claim 1 is improper because Iyer in view of Yamamoto and Yasue does not suggest all the claim limitations in claim 1</u>

MPEP 2142 states that "[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness." In order to establish a *prima facie* case of obviousness, MPEP 2142 further states that "the prior art reference (or references when combined) must teach or suggest all the claim limitations."

Claim 1 calls for "*[a] system to provide conversation states, comprising:*
a first computing device capable of:
    running a process on the first computing device; and
    accepting a message during a conversation between the process running
on the first computing device and another process;
a second computing device capable of:

Attorney's Docket No.: BEAS-01333US1 SRM/KRL   6
Application No.: 10/733,599
M:\tliu\wp\BEAS\1333US1\supp. appeal brief.doc

maintaining a state requested by the message; and

storing information of the state in memory on the second computing device; and

a conversation manager capable of:

identifying the location of the second computing device which maintains the state requested by the message; and

providing the location and/or the information of the state to the first computing device."

In contrast, Iyer discloses "[a] system and method … for information sharing via a virtual shared area in a communication network." (page 1, [0002], line 3-5), wherein "[t]he user device is allowed to connect to the shared area and pick up a piece of information for transmission to the user device" (page 1, [0008] line 4-6). Yamamoto teaches area chat rooms that allow users to carry portable terminals (Abstract). Yasue teaches monitoring of harassment messages sent by a user (Abstract).

Iyer and Yamamoto fail to teach "*a conversation between the process running on the first computing device and another process*". More specifically, Iyer discloses information sharing between "an owner" and "a user through a visitor device" (page 3, [0030]), while Yamamoto discloses information sharing between "users to chat in an on-line chat room" (page1, [0011]). Owner, visitors or users are clearly different from processes. Hence, the Examiner failed to establish that it would have been obvious to one of ordinary skill in the art at the time the invention was made that a system providing conversation states for conversation between processes was taught merely by information sharing between owner and visitors or users which are disclosed in Iyer and Yamamoto.

In addition, Yasue was relied on by the Examiner in the pending Final Office Action only for the purpose of teaching "non-persistent memory would provide faster access times than persistent memory. (Final Office Action dated 6/05/2006, page 5, line1-2)

Therefore, Iyer, Yamamoto and Yasue do not teach or suggest all the claim limitations of claim 1. Therefore, Iyer in view of Yamamoto and Yasue cannot render independent claims 1 obvious, and the Examiner does not fulfill the initial burden of factually supporting any *prima facie* conclusion of obviousness. Accordingly, claim 1 is patentable over Iyer, Yamamoto and Yasue under § 103(a).

b. Rejections of claims 2-9 and 59-60 are improper because Iyer in view of Yamamoto and Yasue does not suggest all the claim limitations in independent claim 1.

Here, claims 2-9 and 59-60 are all dependent claims of independent claim 1, incorporating all limitations in claim 1. Accordingly, claims 2-9 and 59-60 are patentable at least for the same reason for claim 1 as stated above.

c. Rejection of claim 10 is improper because Iyer in view of Yamamoto and Yasue does not suggest all the claim limitations in claim 1

As stated above, MPEP requires the Examiner to establish factually that the prior art reference or references when combined must teach or suggest all the claim limitations.

Claim 10 is patentable, at least for the same reason as stated above for claim 1.

In addition, claim 10 further explicitly limits the scope of claim to the "*conversation between the conversation partner and a process running on a first computing device.*"

In contrast, Iyer discloses information sharing between "an owner" and "a user through a visitor device" (page 3, [0030]), while "the visitors can communicate with the owner and other visitors through message, chat rooms." (page 5, [0038], line 18-28) Again, owner and visitors are clearly different from computer processes. Hence, the Examiner failed to establish that it would have been obvious to one of ordinary skill in the art at the time the invention was made that a system providing conversation states for conversation between a conversation partner and a process running on a computing device was taught merely by information sharing and communication between owner and visitors or users which are disclosed in Iyer and Yamamoto.

Therefore, Iyer, Yamamoto and Yasue do not teach or suggest all the claim limitations of claim 10. Therefore, Iyer in view of Yamamoto and Yasue cannot render independent claims 10 obvious, and the Examiner does not fulfill the initial burden of factually supporting any *prima facie* conclusion of obviousness. Accordingly, claim 10 is patentable over Iyer, Yamamoto and Yasue under § 103(a).

> d. <u>Rejections of claims 20-28 are improper because Iyer in view of Yamamoto and Yasue does not suggest all the claim limitations in independent claim 10.</u>

Here, claims 20-28 are all dependent claims of independent claim 1, incorporating all limitations in claim 10. Accordingly, claims 20-28 are patentable at least for the same reason for claim 10 as stated above.

e. Rejections of claim 29 and 30 are improper because Iyer in view of Yamamoto and Yasue does not suggest all the claim limitations in claim 29 and 30.

As stated above, MPEP requires the Examiner to establish factually that the prior art reference or references when combined must teach or suggest all the claim limitations.

Claim 29 and 30 are patentable, at least for the same reason as stated above for claim 1.

In addition, claim 29 and 30 further explicitly limit the scope of claim to *"invoking the state on the computing device in order to respond to the conversation message"*.

In contrast, Iyer discloses "visitors can comment on the music CD … and ask to stop playing, to fast forward, or to replay the CD … based on the reaction of the visitors, the owner wants to make appropriate changes." (page 5, [0038], line 22-28) Here, commenting or asking the owner does not ensure the "invoking" of a CD or music on CD. In Iyer, a visitor's function is intentionally limited to "even if the entire music file is stored on a visitor device, the play back of the music is controlled exclusively by the owner." (page 1, [0010]) Hence, the Examiner failed to establish that it would have been obvious to one of ordinary skill in the art at the time the invention was made that methods to provide a conversation for a Web service were taught merely by the restricted information sharing and communication between owner and visitors or users which are disclosed in Iyer and Yamamoto.

Therefore, Iyer, Yamamoto and Yasue do not teach or suggest all the claim limitations of claim 29 and 30. Therefore, Iyer in view of Yamamoto and Yasue cannot render independent claims 29 and 30 obvious, and the Examiner does not fulfill the initial burden of factually supporting any *prima facie* conclusion of obviousness. Accordingly, claim 29 and 30 are patentable over Iyer, Yamamoto and Yasue under § 103(a).

    f. <u>Rejections of claims 31-32, 34-37 and 39-42 are improper because Iyer in view of Yamamoto and Yasue does not suggest all the claim limitations in independent claim 29.</u>

Here, claims 31-32, 34-37 and 39-42 are all dependent claims of independent claim 29, incorporating all limitations in claim 29. Accordingly, claims 31-32, 34-37 and 39-42 are patentable at least for the same reason for claim 29 as stated above.

    g. <u>Rejections of claim 43 and 44 are improper because Iyer in view of Yamamoto and Yasue does not suggest all the claim limitations in claim 43 and 44.</u>

As stated above, MPEP requires the Examiner to establish factually that the prior art reference or references when combined must teach or suggest all the claim limitations.

Claim 29 and 30 are patentable, at least for the same reasons as stated above for claim 1, 29 and 30.

Attorney's Docket No.: BEAS-01333US1 SRM/KRL   11
Application No.: 10/733,599
M:\tliu\wp\BEAS\1333US1\supp. appeal brief.doc

h. Rejections of claims 45-46, 48-51 and 53-56 are improper because Iyer in view of Yamamoto and Yasue does not suggest all the claim limitations in independent claim 43.

Here, claims 45-46, 48-51 and 53-56 are all dependent claims of independent claim 43, incorporating all limitations in claim 43. Accordingly, claims 45-46, 48-51 and 53-56 are patentable at least for the same reason for claim 43 as stated above.

i. Rejection of claim 57 is improper because Iyer in view of Yamamoto and Yasue does not suggest all the claim limitations in claim 57.

As stated above, MPEP requires the Examiner to establish factually that the prior art reference or references when combined must teach or suggest all the claim limitations.

Claim 57 is patentable, at least for the same reasons as stated above for claim 1, 29 and 30.

j. Rejection of claim 58 is improper because Iyer in view of Yamamoto and Yasue does not suggest all the claim limitations in claim 58.

As stated above, MPEP requires the Examiner to establish factually that the prior art reference or references when combined must teach or suggest all the claim limitations.

Claim 58 is patentable, at least for the same reasons as stated above for claim 1, 29 and 30.

B. Rejections of claims 7, 8, 17, 18, 35, 36, 49 and 50 are improper because claims 7, 8, 17, 18, 35, 36, 49 and 50 are all dependent claims of patentable independent claims.

    a. <u>Rejections of claims 7 and 8 are improper because claim 7 and 8 are dependent claims of independent claim 1.</u>

Here, claims 7 and 8 are all dependent claims of patentable independent claim 1, incorporating all limitations in claim 1. Accordingly, Iyer in view of Yamamoto, Yasue, further in view of Eide cannot render the present invention in claims 7 and 8 obvious under 35 U.S.C. § 103(a).

    b. <u>Rejections of claims 17 and 18 are improper because claim 17 and 18 are dependent claims of independent claim 10.</u>

Here, claims 7 and 8 are all dependent claims of patentable independent claim 10, incorporating all limitations in claim 1. Accordingly, Iyer in view of Yamamoto, Yasue, further in view of Eide cannot render the present invention in claims 17 and 18 obvious under 35 U.S.C. § 103(a).

    c. <u>Rejections of claims 35 and 36 are improper because claim 35 and 36 are dependent claims of independent claim 29.</u>

Here, claims 35 and 36 are all dependent claims of patentable independent claim 29, incorporating all limitations in claim 1. Accordingly, Iyer in view of Yamamoto, Yasue, further in view of Eide cannot render the present invention in claims 35 and 36 obvious under 35 U.S.C. § 103(a).

Attorney's Docket No.: BEAS-01333US1 SRM/KRL   13
Application No.: 10/733,599
M:\tliu\wp\BEAS\1333US1\supp. appeal brief.doc

d. Rejections of claims 49 and 50 are improper because claim 49 and 50 are dependent claims of independent claim 43.

Here, claims 49 and 50 are all dependent claims of patentable independent claim 43, incorporating all limitations in claim 1. Accordingly, Iyer in view of Yamamoto, Yasue, further in view of Eide cannot render the present invention in claims 49 and 50 obvious under 35 U.S.C. § 103(a).

CONCLUSION

Appellants respectfully submit that all the appealed claims in this application are patentable and request that the Board of Patent Appeals and Interferences overrule the Examiner's rejection and direct allowance of the claims in the present application.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this appeal, including any fee for extension of time, which may be required.

Respectfully submitted,

Dated: April 4, 2007   /Kuiran (Ted) Liu/
                               Kuiran (Ted) Liu, Reg. No. 60,039

Fliesler Meyer LLP
650 California Street, Fourteenth Floor
San Francisco, California 94108
Telephone: 415.362.3800
Facsimile: 415.362.2928

CLAIMS APPENDIX

The claims involved in this Appeal are as follows:

1. (Previously presented) A system to provide conversation states, comprising:

a first computing device capable of:

running a process on the first computing device; and

accepting a message during a conversation between the process running on the first computing device and another process;

a second computing device capable of:

maintaining a state requested by the message; and

storing information of the state in memory on the second computing device; and

a conversation manager capable of:

identifying the location of the second computing device which maintains the state requested by the message; and

providing the location and/or the information of the state to the first computing device.

2. (Previously presented) The system according to claim 1, wherein:

the first and second computing devices form a cluster.

3. (Original) The system according to claim 1, wherein:

the conversation manager is capable of maintaining the locations of all states in the system.

4. (Previously presented) The system according to claim 1, wherein:

the information may include, a map of every state leased, owned, or stored on the second computing device.

5. (Previously presented) The system according to claim 1, wherein:

the first and second computing devices can be the same computing device.

6. (Previously presented) The system according to claim 1, wherein:

the second computing device is capable of maintaining the information both in-memory and on persistent storage.

7. (Previously presented) The system according to claim 1, wherein:

the conversation manager is capable of designating the second computing device as the primary and replicating the information on the second computing device to a third computing device.

8. (Previously presented) The system according to claim 7, wherein:

the conversation manager is capable of routing to the third computing device and setting it as the new primary when the second computing device fails.

9. (Previously presented) The system according to claim 1, wherein:

the conversation manager is capable of periodically determining the availability of the second and third computing devices.

10. (Previously presented) A system to provide conversation for Web service, comprising:

a conversation partner, which is a process, capable of providing a message during a conversation between the conversation partner and a process running on a first computing device;

said first computing device capable of accepting a message during the conversation with the conversation partner;

a second computing device capable of:

maintaining a state requested by the message; and

storing information of the state in memory on the second computing device; and

a conversation manager capable of:

identifying the location of the second computing device which maintains the state requested by the message; and

providing the location and/or the information of the state to the first computing device.

11. (Original) The system according to claim 10, wherein:

the message includes a conversation ID.

12-19. (Canceled).

20. (Previously presented) The system according to claim 11, wherein:

the first computing device is capable of contacting the conversation manager to determine the location of the state requested by the message using the conversation ID.

21. (Previously presented) The system according to claim 10, wherein:

the first computing device is capable of answering a request for the state directly

without contacting the conversation manager if it owns such state.

22. (Previously presented) The system according to claim 10, wherein:

the conversation manager is capable of accepting a request for the location of the state from the first computing device.

23. (Previously presented) The system according to claim 11, wherein:

the conversation manager is capable of providing the location and/or the information of the state to the first computing device requesting it based on the conversation ID.

24. (Previously presented) The system according to claim 10, wherein:

the first computing device is capable of accepting the location of the state from the conversation manager.

25. (Previously presented) The system according to claim 10, wherein:

the first computing device is capable of invoking the state on the second computing device in order to respond to the conversation message received.

26. (Previously presented) The system according to claim 10, wherein:

the conversation manager is capable of sharing the state with at least two conversations.

27. (Previously presented) The system according to claim 10, wherein:

the conversation manager is capable of tracking a participating Web service that initiates the conversation.

28. (Previously presented) The system according to claim 27, wherein:

the conversation manager is capable of sharing the state with at least two Web services and joining the sessions of these services.

29. (Previously presented) A method to provide a conversation for a Web service, comprising:

maintaining a state on a computing device;

storing information of the state in memory on the computing device;

accepting a message requesting the state during a conversation between two processes;

contacting a conversation manager to determine the location of the state requested by the message;

accepting the location and/or the information of the state from the conversation manager; and

invoking the state on the computing device in order to respond to the conversation message.

30. (Previously presented) A method to provide a conversation for a Web service, comprising:

maintaining a state on a computing device;

storing information of the state in memory on the computing device;

accepting a message requesting the state during a conversation between two processes; and

invoking the state on the computing device in order to respond to the conversation message received directly at the computing device without contacting a conversation manager.

31. (Original) The method according to claim 29, further comprising:

maintaining the locations of all states in the system on the conversation manager.

32. (Previously presented) The method according to claim 29, further comprising:

maintaining on a~~a~~ the computing device its state information, which may include, a map of every state leased, owned, or stored on it.

33. (Canceled).

34. (Previously presented) The method according to claim 32, further comprising:

maintaining the state information on the computing device both in-memory and on persistent storage.

35. (Previously presented) The method according to claim 32, further comprising:

designating the computing device as the primary and replicating the state information on the computing device to another computing device.

36. (Previously presented) The method according to claim 35, further comprising:

routing to the another computing device; and
setting it as the new primary when the current primary computing device fails.

37. (Previously presented) The method according to claim 29, further comprising:

determining the availability of the computing devices periodically.

38. (Canceled).

39. (Previously presented) The method according to claim 29, further comprising:

accepting request for the location of the state from a computing device; and
providing the location of the state to the computing device requesting it.

40. (Previously presented) The method according to claim 29, further comprising:

      sharing the state with at least two conversations.

41. (Previously presented) The method according to claim 29, further comprising:

      tracking a participating Web service that initiates the conversation.

42. (Previously presented) The method according to claim 41, further comprising:

      sharing the state with at least two Web services; and

      joining the sessions of these services.

43. (Previously presented) A machine readable medium having instructions stored thereon that when executed by a processor cause a system to:

      maintain a state on a computing device;

      store the information of the state in memory on the computing device;

      accept a message requesting the state during a conversation between two processes;

      contact a conversation manager to determine the location of the state requested by the message;

      accept the location and/or the information of the state from the conversation manager; and

      invoke the state on the computing device in order to respond to the conversation message.

Attorney's Docket No.: BEAS-01333US1 SRM/KRL   21
Application No.: 10/733,599
M:\tliu\wp\BEAS\1333US1\supp. appeal brief.doc

44. (Previously presented) A machine readable medium having instructions stored thereon that when executed by a processor cause a system to:

      maintain a state on a computing device;

      store information of the state in memory on the computing device;

      accept a message requesting the state during a conversation between two processes; and

      invoke the state on the computing device in order to respond to the conversation message received directly at the computing device without contacting a conversation manager.

45. (Original) The machine readable medium of claim 43, further comprising instructions that when executed cause the system to:

      maintain the locations of all states in the system on the conversation manager.

46. (Previously presented) The machine readable medium of claim 43, further comprising instructions that when executed cause the system to:

      maintain on the computing device information, which may include, a map of every state leased, owned, or stored on it.

47. (Canceled).

48. (Previously presented) The machine readable medium of claim 46, further comprising instructions that when executed cause the system to:

      maintain the state information on the computing device both in-memory and on persistent storage.

49. (Previously presented) The machine readable medium of claim 48, further comprising instructions that when executed cause the system to:

designating the computing device as the primary and replicating the state information on the computing device to another computing device.

50. (Previously presented) The machine readable medium of claim 49, further comprising instructions that when executed cause the system to:

route to the another computing device; and

set it as the new primary when the current primary computing device fails.

51. (Previously presented) The machine readable medium of claim 43, further comprising instructions that when executed cause the system to:

check for the availability of the computing devices periodically.

52. (Canceled).

53. (Previously presented) The machine readable medium of claim 43, further comprising instructions that when executed cause the system to:

accept request for the location of the state from a computing device; and

provide the location of the state to the computing device requesting it.

54. (Previously presented) The machine readable medium of claim 43, further comprising instructions that when executed cause the system to:

share the state with at least two conversations.

55. (Previously presented) The machine readable medium of claim 43, further comprising instructions that when executed cause the system to:

track a participating Web service that initiates the conversation.

56. (Previously presented)   The machine readable medium of claim 55, further comprising instructions that when executed cause the system to:

        share the state with at least two Web services; and

        join the sessions of these services.

57. (Previously presented) A system for handling conversation, comprising:

        means for maintaining a state on a computing device;

        means for storing information of the state in memory on the computing device;

        means for accepting a message requesting the state during a conversation between two processes;

        means for contacting a conversation manager to determine the location of the state requested by the message;

        means for accepting the location and/or the information of the state from the conversation manager; and

        means for invoking the state on the computing device in order to respond to the conversation message.

58. (Previously presented)   A computer data signal embodied in a transmission medium, comprising:

        a code segment including instructions to maintain a state on a computing device;

        a code segment including instructions to store information of the state in memory on the computing device;

        a code segment including instructions to accept a message requesting the state during a conversation between two processes;

        a code segment including instructions to contact a conversation manager to determine the location of the state requested by the message;

        a code segment including instructions to accept the location and/or the information of the state from the conversation manager; and

Attorney's Docket No.: BEAS-01333US1 SRM/KRL   24
Application No.: 10/733,599
M:\DXue\wp\BEAS\1333US1\appeal brief.doc

a code segment including instructions to invoke the state on the computing device in order to respond to the conversation message.

59. (Previously presented) The system according to claim 1, wherein:

the conversation can be within the context of a business application.

60. (Previously presented) The system according to claim 1, wherein:

the state can be one of: a program, an application, a service, and a database instance.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

Not Applicable since there are no related appeals or interferences which will affect or be affected by the outcome of this appeal.